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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/626,535	07/27/2000	Donald F. Hooper	42390. P7876X	1214

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EXAMINER

ENG, DAVID Y

ART UNIT	PAPER NUMBER
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2155

DATE MAILED: 09/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/626,535

Applicant(s)

HOOPER ET AL.

Examiner

DAVID Y. ENG

Art Unit

2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 0
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claim 2 has been cancelled. Newly submitted claims 18-20 have been entered.
The active claims are 1 and 3-20.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1 and 3-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirk (USP 4,709,347) in view of Mohamed (USP 6,366,998).

With respect to claim 1, 7, 15, Kirk teaches a method of processing network data (see Local Area Network 10 in Figure 1 of Kirk and lines 2-11 of column 4), in a processor (MOD) having multiple programmable multi-threaded (bit-slice) engines (see programmable micro-engine 18-04 in BIU of Figure 2 and lines 23-39 of column 4) integrated within the processor, the method comprising:

scheduling a first thread provided by the multiple programmable multi-threaded engines (see programmable micro-engines) integrated within the processor to process a first incoming block of data within a network packet (packet is inherent in network system) received at port (see transceiver 18-04 of Fig. 2) of a media access control device.

It appears that Kirk has only one (micro) engine instead of plurality. See Figures 1, 2 and 8 and the corresponding description in Mohamed. Mohamed teaches a processor having a plurality of DPUs and a scheduler. Each DPU provides a thread for processing incoming data. Each of the threads is scheduled by the scheduler to process simultaneously respective incoming data streams. From the teaching of Mohamed, it would have been obvious to a person of ordinary skill in the art to employ more than

one engine of Kirk so that more than one thread of incoming data can be processed simultaneously.

With respect to claims 2-4 and 16, the micro-engine of Kirk and the DPU of Mohamed are inherently capable of saving and retrieving information including information labeled as state information or pointer.

With respect to claims 7 and 17 the engine of Kirk is capable of outputting (inherent) data including state information to a circuitry including circuitry labeling as transmit circuitry.

With respect to claim 8, there is no time sharing in Kirk or Mohamed.

With respect to claim 9, different threads operate out of different DPUs in Kirk also.

With respect to claims 10, 11 and 14, the wherein clauses merely state the result of the limitations recited in parent claim 7. The clauses therefore add nothing to the patentability or substance of the claims.

With respect to claim 12, Kirk has more than two DPUs.

With respect to claim 13, Kirk's DPUs run on the same code also because they are identical.

With respect to claim 18, Ethernet is well known in the art.

With respect to claim 19, port monitoring is inherent in tranceiving (see Figure 2 in Kirk).

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With respect to claim 20, header parsing is inherent in network communication.
The micro engine of Kirk is capable of performing lookup and enqueueing also (see receive FIFO in Figure 2).

A handwritten signature in black ink, appearing to read 'D. Eng', with a stylized flourish at the end.

DAVID Y. ENG
PRIMARY EXAMINER